REMARKS

Claims 1 to 18 are pending. Claims 3, 9, 15 and 17 are withdrawn and claims 19 to 22 are new. No claims are allowed.

1. Claims 1, 2, 4 to 8, 10 to 14, 16 and 18 are rejected under 35 USC 102(b) as being anticipated by EP 1154500. EP '500 describes a lithium-ion secondary cell including unitary anode and cathode electrodes having an irregular shape that are spirally wound or folded with a suitable separator. The negative and positive electrodes comprise respective negative and positive electrode active materials that are each intercalatable with lithium. The thusly formed electrode assembly is housed in an irregular-shaped casing and activated with an electrolyte. Importantly, the electrodes are disposed such that a periphery of the positive electrode (cathode) is completely bounded by a periphery of the negative electrode (anode) to prevent lithium from plating as the cell is repeatedly cycled between a charged and a discharged condition.

More particularly, at paragraph 0039, EP '500 teaches that

> "the width and length of the cathode electrode are shorter or smaller than that of the anode electrode. In other words, the cathode material is completely bounded by the anode material so as not to cause lithium plating. Therefore, that portion of the anode electrode which contains electrochemically active components extends beyond the cathode electrode at the end of the cell wind. Likewise, at the beginning of the cell wind, enough of the uncoated portion of the cathode current collector is provided to ensure that it is opposite

a portion of the anode active sheet. Should the electrochemically active cathode material, which is laminated to the cathode current collector, not be completely opposed by electrochemically active anode material, the possibility exists that lithium metal will plate within the cell. This is undesirable as it may compromise the performance or the safety of the cell. Finally, it should be noted that the separator length and width extend beyond that of the anode assembly."

In paragraphs 0039 and 0040, EP '500 discusses the embodiment of Fig. 3.

"In Fig. 3, the profile of the cell stack assembly 140 is shown. Viewing the cell stack assembly 140 from the outside inward, the order of the alternating anode and cathode plates is 28, 99, 25, 96, 22, 93, 19, 90, and 16. Anode plate 28 is the largest and cathode plate 99 is directly adjacent to it. Cathode plate 99 is contained within the boundaries of anode plate 28. Cathode plate 99 should also be contained within the boundaries of anode plate 25 which would be positioned third in the cell stack assembly when viewed from the outside. Cathode plate 96 should also be contained within the boundaries of anode plates 25 and 22.

Cathode plate 99 may be larger than anode plate 22, so long as it is not larger than anode plates 28 and 25 which are positioned adjacent to it. Cathode plate 93 is sixth in line and is contained within the boundaries of anode plate 22."

In contrast, the presently amended claims do not call for "the cathode material [being] completely bounded by the anode material . . ." This is because the cell of EP '500 is of a secondary chemistry while that of the presently claimed invention is a primary cell. In a primary cell design, there is not the same concern regarding lithium plating as in a secondary, rechargeable cell. In a primary cell, the lithium ions only move from the anode to intercalate into the cathode. Once the cell is depleted of its capacity, whether it is of an anode-limited or a cathode-limited design, the cell has reached end-of-life. There is no recharging and, therefore, no possibility of lithium plating should the cathode plates not be completely bounded by opposed anode plates. This is regardless whether the cell is built in a case-negative or a case-positive design. Therefore, one skilled in the art would not have looked to EP '500 for guidance in building a primary cell with scalloped electrodes, and the like.

The specification supports the amended claim language calling for "a combined capacity of a first and second anode faces of the respective first and second anode portions facing opposite sides of the first cathode portion is greater than a capacity of the first cathode portion, or . . . a combined capacity of a first and second cathode faces of the respective first and second cathode portions facing opposite sides of the first anode portion is greater than a capacity of the first anode portion." Particularly, at page 15, line 5 to page 16, line 2 the applicants write that:

> the present electrode assembly 12 housed in the casing 10 is particularly well suited for primary cells of either an anode limited ($Q_- < Q_+$) or a cathode limited ($Q_+ < Q_-$) balance. In such designs,

it is desirable to have the boundaries of the individual electrode face portions matching those of the opposite polarity that they are sandwiched between. While the electrode assembly 12 in Fig. 1A is enlarged for the sake of illustration, it is within the scope of the present invention that the capacity of any one electrode face portion is sized to match that of the adjacent opposite polarity face portions for the purpose of maintaining the desired anode-limited or cathode-limited balance.

For example, [in Fig. 1A] in a cathode-limited balance, the capacity of anode face portion 30 and one-half of that of anode face portion 34 is greater than that of intermediate cathode face portion 56. Only one-half of anode face portion 34 is balanced to cathode face portion 56 because the other half is balanced to cathode face portion 60. The capacity of the opposite half of anode face portion 34 and one-half of anode face portion 36 is greater than the capacity of cathode face portion 60. The capacity of the opposite half of anode face portion 36 and one-half of anode face portion 32 is greater than the capacity of cathode face portion 58. Finally, the capacity of the opposite half of anode face portion 32 and all of anode face portion 28 is greater than that of intermediate cathode face portion 54. As will now be apparent to those skilled in the art, a similar capacity relationship exits for the various immediately adjacent opposite polarity connecting potions.

Accordingly, amended independent claims 1, 11 and 13 are neither anticipated by EP '500, nor are they obvious in light of its teachings. Claims 2, 4 to 8, 10, 12, 14, 16 and 18 are allowable as hinging from patentable base claims.

Reconsideration of this rejection is requested.

2. Claims 1, 2, 4 to 8, 10 to 14, 16 and 18 are rejected under 35 USC 102(e) as being anticipated by Spillman et al. (U.S. Patent No. 6,635,381). As the Examiner points out in the office action "[t]he Spillman '381 patent corresponds to the EP '500 publication". Therefore, similar arguments as presented in section 1 above with respect to EP '500 are equally applicable to Spillman et al.

Accordingly, amended independent claims 1, 11 and 13 are neither anticipated by Spillman et al., nor are they obvious in light of its teachings. Claims 2, 4 to 8, 10, 12, 14, 16 and 18 are allowable as hinging from patentable base claims.

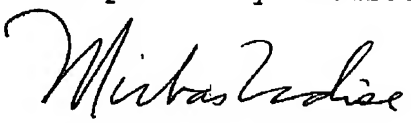
Reconsideration of this rejection is requested.

3. Claims 1, 2, 4 to 8, 10 to 14, 16 and 18 are rejected on the grounds of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 to 32 of Spillman et al. For at least the reason that Spillman et al. neither anticipates nor renders obvious the presently pending claims, this rejection is believed to be rendered moot.

Reconsideration of this rejection is requested.

It is believed that claims 1, 4 to 8, 10 to 14, 16 and 18 to 22 are now in condition for allowance. Notice of Allowance is requested.

Respectfully Submitted,



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